

CLAIMS

1. (Previously presented) A method for determining a position of a mobile terminal comprising:
transmitting a paging request to a mobile terminal via a first control channel for packet data services, the paging request indicating a circuit switched service;
switching from the first control channel to a second control channel for circuit-switched services;
receiving a paging response from the mobile terminal via the second control channel;
and
determining the position of the mobile terminal based on the paging response.
2. (Original) The method of claim 1 wherein the first control channel is a packet control channel and the second control channel is a circuit-switched control channel.
3. (Original) The method of claim 2 wherein the first control channel is an Enhanced General Packet Radio Service 136 (EGPRS-136) control channel and the second control channel is a digital control channel.
4. (Previously presented) The method of claim 1 further comprising:
transmitting, in response to the paging response, a release message via the second control channel.
5. (Original) The method of claim 1 wherein the paging request is one of a hard page and a layer 3 page comprising a teleservice indication or Wide Open R-Data Transport indication.
6. (Original) The method of claim 1 wherein the determining the position of the mobile terminal based on the paging response comprises:

determining a cell in which the mobile terminal is positioned.

7. (Previously presented) A system for determining a position of a mobile terminal comprising:
 - a memory that stores instructions; and
 - a processor configured to:
 - send a paging request to a mobile terminal via a first control channel for packet data services, the paging request indicating that the mobile terminal is to switch to a second control channel for circuit-switched services;
 - receive a paging response from the mobile terminal via the second control channel;
 - and
 - determine the position of the mobile terminal based on the paging response.
8. (Original) The system of claim 7 wherein the first control channel is a packet control channel and the second control channel is a circuit-switched control channel.
9. (Original) The system of claim 7 wherein the paging request is one of a hard page and a layer 3 page indicating a circuit-switched service.
10. (Original) The system of claim 7 wherein, after receiving a paging response from the mobile terminal via the second control channel, the processor sends a release message to the mobile terminal, the release message indicating that the mobile terminal may switch back to the first control channel.
11. (Original) The system of claim 7 wherein, when determining the position of the mobile terminal based on the paging response, the processor determines a cell sector in which the mobile terminal is located.

12. (Previously Presented) A computer-readable medium having instructions to control a processor to:

send a paging request to a mobile terminal via a first control channel for packet data services, the paging request indicating that the mobile terminal is to switch to a second control channel for circuit switched services;

receive a paging response from the mobile terminal via the second control channel; and
determine the position of the mobile terminal based on the paging response.

13. (Original) The computer-readable medium of claim 12 wherein the first control channel is a packet control channel and the second control channel is a circuit-switched control channel.

14. (Original) The computer-readable medium of claim 12 wherein the paging request is one of a hard page and a layer 3 page comprising a teleservice indication or Wide Open R-Data Transport indication.

15. (Previously Presented) The computer-readable medium of claim 12 wherein responsive to the paging response from the mobile terminal, the instructions further control the processor to:
send a release message to the mobile terminal indicating that the mobile terminal may switch back to the first control channel.

16. (Previously Presented) A method for determining a position of a mobile terminal comprising:
transmitting a paging request to the mobile terminal via a first control channel for packet data services, the paging request indicating a circuit switched service;
switching from the first control channel to a second control channel for circuit-switched services;
receiving a paging response via the second control channel from the mobile terminal;

transmitting a position request to the mobile terminal;
receiving a position response from the mobile terminal; and
determining the position of the mobile terminal based on the position response.

17. (Original) The method of claim 16 wherein the first control channel is a packet control channel and the second control channel is a circuit-switched control channel.

18. (Original) The method of claim 16 wherein the paging request is a layer 3 page comprising a teleservice indication or a Wide Open R-Data Transport indication.

19. (Original) The method of claim 16 further comprising:
assigning, in response to receiving the paging response, one of a control channel and a traffic channel, and
wherein the transmitting a position request to the mobile terminal occurs via the assigned channel.

20. (Original) The method of claim 16 further comprising:
transmitting a release message after receiving the position response.

21. (Original) The method of claim 16 wherein the determining the position of the mobile terminal based on the position response comprises:
determining a cell sector in which the mobile terminal is located.

22. (Previously Presented) A system for determining a position of a mobile terminal comprising:

a memory that stores instructions; and

a processor configured to:

send a paging request to the mobile terminal via a first control channel for packet data

services indicating that the mobile terminal is to switch to a second control channel

for circuit-switched services;

receive a paging response from the mobile terminal via the second control channel;

transmit a position request to the mobile terminal;

receive a position response from the mobile terminal; and

determine the position of the mobile terminal based on the position response.

23. (Original) The system of claim 22 wherein the first control channel is a packet control channel and the second control channel is a circuit-switched control channel.

24. (Original) The system of claim 22 wherein the paging request is a layer 3 page indicating a circuit-switched service.

25. (Previously presented) The system of claim 22 wherein, responsive to the paging response, the processor:

assigns one of a control channel and a traffic channel to the mobile terminal; transmits the position request to the mobile terminal via the assigned channel; and receives the position response via the assigned channel.

26. (Previously presented) The system of claim 22 wherein the processor determines a cell in which the mobile terminal is located.

27. (Previously presented) A computer-readable medium having instructions to control at least one processor to:

transmit a paging request to a mobile terminal via a first control channel for packet data services, the paging request indicating a circuit switched service;
receive a response to the paging request via a second control channel for circuit-switched services;
transmit a position request to the mobile terminal;
receive a position response; and
determine the position of the mobile terminal based on the position response.

28. (Original) The computer-readable medium of claim 27 wherein the first control channel is a packet control channel and the second control channel is a circuit-switched control channel.

29. (Original) The computer-readable medium of claim 27 wherein the paging request is a layer 3 page comprising a teleservice indication or Wide Open R-Data Transport indication.

30. (Previously presented) The computer-readable medium of claim 27 wherein the processor is configured to:

assign, in response to receiving the paging response, one of a control channel and a traffic channel; and
transmit a position request to the mobile terminal via the assigned channel.

31. (Original) The computer-readable medium of claim 27 wherein the determining the position of the mobile terminal based on the position response comprises:

determining a cell sector in which the mobile terminal is located.

32. (Currently Amended) A method of determining the position of a mobile terminal comprising:

receiving a paging request from a wireless communications network over a first control channel for packet data services, the paging request indicating a circuit switched service;

switching from the first control channel to a second control channel for circuit-switched services; and

transmitting a paging response over the second control channel;

receiving a position request from the wireless communications network over the second control channel; and

transmitting a position response to the wireless communications network.

33. (Currently Amended) The method of claim ~~33~~ 32 further comprising suspending packet data services responsive to the paging request.

34. (Currently Amended) The method of claim ~~33~~ 32 wherein the wireless communications network determines the position of the mobile terminal based on the paging response.

35-36. (Cancelled).

37. (Currently Amended) The method of claim ~~36~~ 32 wherein the wireless communications network determines the position of the mobile terminal based on the position response.

38. (Currently Amended) A mobile terminal comprising:

a transceiver to communicate in a voice mode and a packet data mode; and

a processing unit communicatively connected to the transceiver and configured to:

receive a paging request from the wireless communications network over a first

control channel for packet data services, the paging request indicating a circuit
switched service;

switch to a second control channel for circuit-switched services responsive to the
paging request over the first control channel; and

transmit a paging response to the wireless communications network over the second
control channel;

receive a position request from the wireless communications network over second
control channel; and

transmit a position response to the wireless communications network over second
control channel.

39. (Previously presented) The mobile terminal of claim 38 wherein the processor is configured
to suspend a packet data session responsive to the paging request.

40-41. (Cancelled).